



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,676	10/17/2003	Hartmut Pallmann	4632-0102P	7916

2292 7590 04/19/2006

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SELF, SHELLEY M

ART UNIT PAPER NUMBER

3725

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,676

Applicant(s)

PALLMANN, HARTMUT

Examiner

Shelley Self

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-24 is/are allowed.
- 6) ☒ Claim(s) 25-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The amendment filed on February 2, 2006 has been considered but is ineffective to overcome the prior art reference and an action on the merits follows.

Drawings

The drawings were received on February 2, 2006. These drawings are hereby acknowledged and approved by the Examiner.

Claim Objections

Claims 1-9 are objected to because of the following informalities:

-claim 1, lines 6-7, state, "*tool rotates rotate about an axis of rotation line*" A grammatical error appears to result in the recitation, rotates rotate. Claims 1-9 appear to be allowable if re-written to correct any informality. Also regarding claim 1, line 4, "the first or second chipping tool" should be --the first or second chipping tools--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

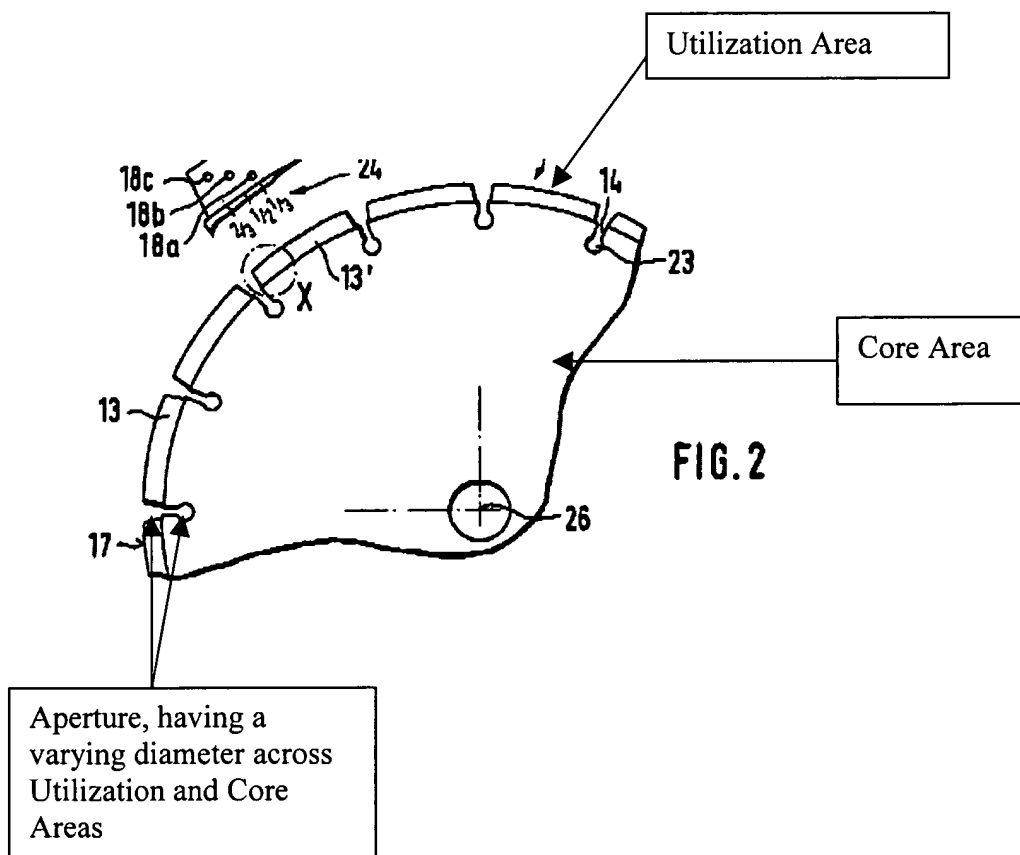
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3725

Claims 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Chanton et al. (6,250,295). Chanton discloses a method and apparatus for detecting a state of attrition of a chipping tool comprising at least one chipping tool (10); the chipping tool having a core area (fig. 1, 2) and a utilization area (fig. 1, 2) the core area being positioned adjacent to the utilization area, wherein an aperture extends substantially through the core area towards the utilization area; and inspecting a utilization area of the chipping tool for an aperture, the chipping tool determining a state of attrition of the utilization area based on a change in a diameter of the aperture (figs. 1, 2).



Allowable Subject Matter

Claims 1-9 contain allowable subject matter and would be deemed allowable if re-written in the same scope and to overcome any informality.

Claims 10-25 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or fairly suggest *at least one of the first or second chipping tools arranged on a carrier element, wherein a thickness of the first or second chipping tool is divided into a core area and wherein the first or second chipping tools have at least one recess formed substantially perpendicular to a division line, which extends across the core area and ends in a division line provided between the core area and the utilization area* in combination with the rest of the claimed limitations as set forth in claim 1.

Further the prior art of record does not disclose or fairly suggest a *disk-shaped chipping tool or a carrier element arranged within a housing, at least one chipping tool fastened to the carrier element, wherein the at least one chipping tool is divided by a border into a utilization area and a core area along a length of the tool, wherein the core area has at least one bore formed therein, the at least one bore extends through the core area and terminates at the utilization area* in combination with the rest of the claimed limitations as set forth in claims 10 and 15.

As noted in the previous Office Action the prior art reference, Fischer (3,678,883) discloses an earth boring drill comprising a shaft/journal (11) to which tool (14, 21) is affixed. Fischer discloses a tool to have two parts, a utilization portion (14) having projecting teeth (16) and a core portion/area (21) having a shared boundary to the journal/shaft (11). Further it is the

Art Unit: 3725

utilization area (14, 16) that contacts a surface for machining. Fischer discloses a boundary line between the utilization area (14) and the core portion (21; fig. 2). Fischer further discloses a core area of the tool (21) has a bored hole (43) having parallel boundary walls and the bore terminating in the boundary (figs. 2, 5) line between the utilization area (14) and the core area (21). Fischer teaches that during the drilling operation the utilization area is subjected to wear due to repeated use and is ultimately worn to the core area (21), once worn to the core area (21) the bore (43) containing a wear indicator (44) releases a signal such that operation can be halted so as not to cause unnecessary damage. Fischer does not disclose a *disk-shaped* chipping tool. Instead, Fischer discloses a non-planer cylindrically extending tool/bit. Further, Fischer does not disclose *a carrier element arranged within a housing, at least one chipping tool fastened to the carrier element*, instead Fischer discloses a boring drill (fig. 1) fastened to a carrier element (11) unassociated with any housing. Accordingly, Fischer fails to anticipate or render obvious the claimed invention as set forth in claims 1, 10 and 15.

Although Fischer discloses a tool having both a utilization area and core area, Fischer's tool is not disk shaped. Fischer's non-planar cylindrical shape differs from that of Applicant's disk-shape; because Applicant's specification/drawings (figs. 1, 3) clearly defines a disk-shape as a circular planar surface, Applicant's claimed invention as set forth in claim 10 patentably distinguishes over the prior art, Fischer.

Response to Arguments

Applicant's arguments filed February 2, 2006 have been carefully considered but they are not persuasive. Applicant's remarks are drawn to the failure of the prior art Fischer to disclose or fairly suggest a disk-shaped chipping tool and that Fischer fails to teach or suggest at least that a state of attrition is determined on the basis of change in diameter of an aperture. Examiner notes that Fisher does not disclose a "disk-shaped" chipping tool, however Chanton does disclose a disk-shaped chipping tool. Further Chanton discloses a chipping tool having a utilization area, i.e., an area first to contact a workpiece for chipping and a core area. Chanton explicitly teaches various methods of determining a state of attrition for reducing wear and/or damage to a core area of the chipping tool. One such method uses an aperture/recess having a varying diameter (figs. 1, 2; examiner notes the apertures extending from the outer surface of tool 10 to a portion of the core). The claims (25-28) as written do not limit or preclude the aperture/ recess from penetrating a portion of the core area nor the claims positively recite any termination point of the aperture. Accordingly a rejection of claims 25-26 is made in view of Chanton and thus the claimed subject matter is not deemed allowable over the prior art of record. Chanton was made of record in the previous Office Action.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

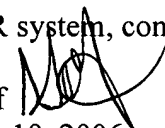
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 3725

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelley Self whose telephone number is (571) 272-4524. The examiner can normally be reached Mon-Fri from 8:30am to 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Derris Banks can be reached at (571) 272-4419. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on accessing the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SSelf 
April 10, 2006



DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700